

09/882,777

L23 ANSWER 90 OF 167 CAPLUS COPYRIGHT 2002 ACS

AN 1995:248136 CAPLUS

DN 122:133800

TI Practical syntheses of a novel tricyclic dipeptide mimetic based on a [6H]-azepinoindoline nucleus: application to angiotensin-converting enzyme

inhibition

AU De Lombaert, Stephane; Blanchard, Louis; Stamford, Lisa B.; Sperbeck, Donald M.; Grim, Michael D.; Jenson, Todd M.; Rodriguez, Herman R.

CS Res. Dep., CIBA-GEIGY Corp., Summit, NJ, 07901, USA

SO Tetrahedron Lett. (1994), 35(41), 7513-16

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 122:133800

AB Two stereocontrolled synthetic approaches towards 5(S)-amino-1,2,4,5,6,7-hexahydro-4-oxo-azepino[3,2,1-hi]indole-2(S)-carboxylic acid, based on intramol. Friedel-Crafts acylations, are reported. This conformationally restricted tricyclic dipeptidomimetic has been converted to its 5-[1(S)-carboxy-3-phenylpropyl]amino analog, a potent and orally active inhibitor of angiotensin-converting enzyme (ACE).

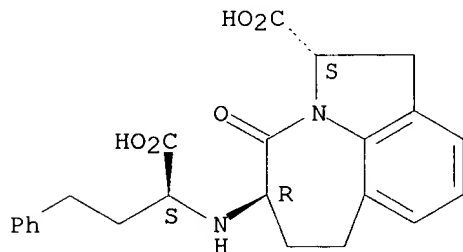
IT **160726-16-9P 160798-20-9P**

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of a tricyclic dipeptide mimetic as ACE inhibitor)

RN 160726-16-9 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid, 5-[(1-carboxy-3-phenylpropyl)amino]-1,2,4,5,6,7-hexahydro-4-oxo-, [2S-[2.alpha.,5.beta.(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

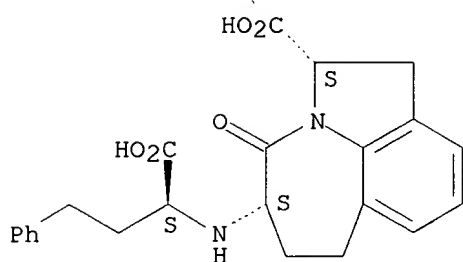


RN 160798-20-9 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid, 5-[(1-carboxy-3-phenylpropyl)amino]-1,2,4,5,6,7-hexahydro-4-oxo-, [2S-[2.alpha.,5.alpha.(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09/882,777



IT 160865-33-8P

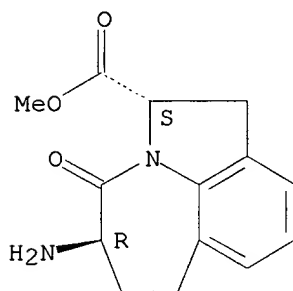
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of a tricyclic dipeptide mimetic as ACE inhibitor)

RN 160865-33-8 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid,
5-amino-1,2,4,5,6,7-hexahydro-4-

oxo-, methyl ester, monohydrobromide, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HBr

IT 160726-07-8P 160726-08-9P 160726-09-0P

160798-17-4P 160798-18-5P 160798-19-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of a tricyclic dipeptide mimetic as ACE inhibitor)

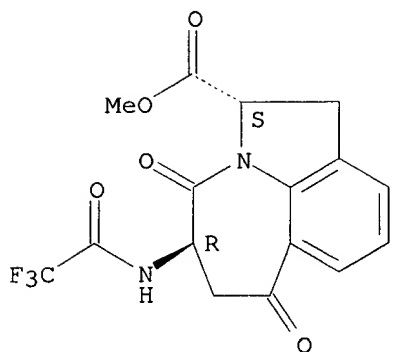
RN 160726-07-8 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid,
1,2,4,5,6,7-hexahydro-4,7-dioxo-

5-[(trifluoroacetyl)amino]-, methyl ester, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

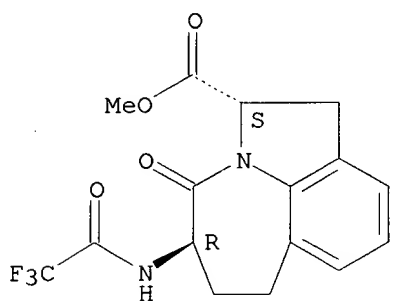
09/882,777



RN 160726-08-9 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid, 1,2,4,5,6,7-hexahydro-4-oxo-5-[(trifluoroacetyl)amino]-, methyl ester, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

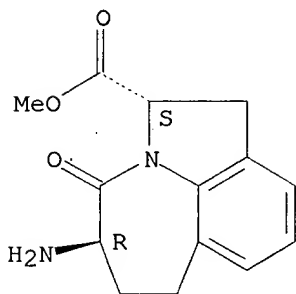


RN 160726-09-0 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid, 5-amino-1,2,4,5,6,7-hexahydro-4-oxo-, methyl ester, monohydrochloride, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

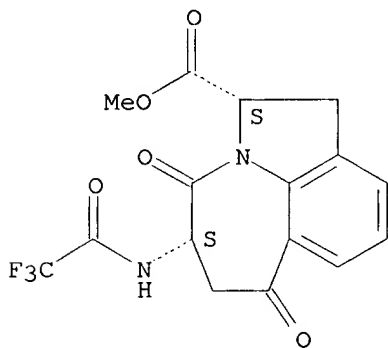
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● HCl

RN 160798-17-4 CAPLUS
CN Azepino[3,2,1-hi]indole-2-carboxylic acid,
1,2,4,5,6,7-hexahydro-4,7-dioxo-
5-[(trifluoroacetyl)amino]-, methyl ester, (2S-cis)- (9CI) (CA INDEX
NAME)

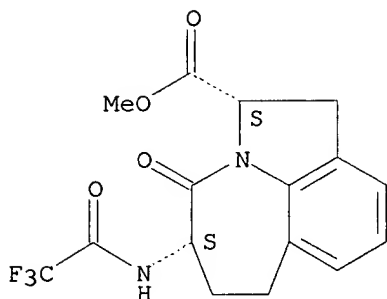
Absolute stereochemistry.



RN 160798-18-5 CAPLUS
CN Azepino[3,2,1-hi]indole-2-carboxylic acid, 1,2,4,5,6,7-hexahydro-4-oxo-5-
[(trifluoroacetyl)amino]-, methyl ester, (2S-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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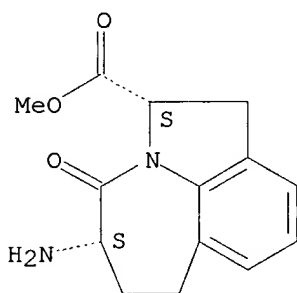
RN 160798-19-6 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid,

5-amino-1,2,4,5,6,7-hexahydro-4-

oxo-, methyl ester, monohydrochloride, (2S-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

IT 160726-15-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

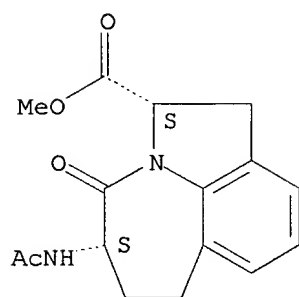
(prepn. of a tricyclic dipeptide mimetic as ACE inhibitor)

RN 160726-15-8 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid, 5-(acetylamino)-1,2,4,5,6,7-hexahydro-4-oxo-, methyl ester, (2S-cis)- (9CI) (CA INDEX NAME)

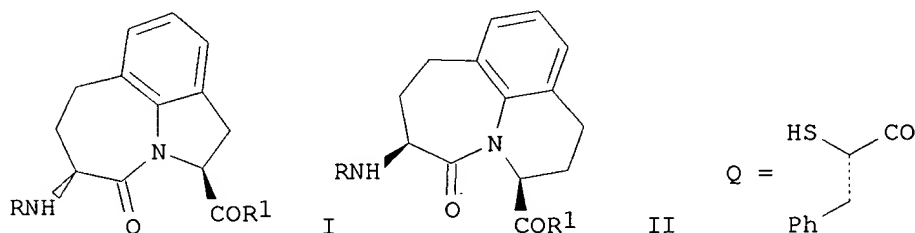
Absolute stereochemistry.

09/882,777



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L23 ANSWER 85 OF 167 CAPLUS COPYRIGHT 2002 ACS
AN 1995:439878 CAPLUS
DN 123:112686
TI Synthesis of benzo-fused, 7,5- and 7,6-fused azepinones as
conformationally restricted dipeptide mimetics
AU Robl, Jeffrey A.; Karanewsky, Donald S.; Asaad, Magdi M.
CS Bristol-Myers Squibb Pharmaceutical Res. Institute, Princeton, NJ,
08453-4000, USA
SO Tetrahedron Letters (1995), 36(10), 1593-6
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier
DT Journal
LA English
OS CASREACT 123:112686
GI



AB Methodol. for the generation of novel conformationally restricted dipeptide mimetics I and II (R = H, R1 = OEt) has been developed. The key

step involved intramol. addn. of an oxonium ion to the proximal indoline/tetrahydroquinoline arom. ring. A dramatic difference in reactivity was obsd. in the formation of the 7,5-vs. the 7,6-fused azepinone nuclei. Application of these mimetics in the synthesis of dual-acting angiotensin converting enzyme (ACE)/neutral endopeptidase (NEP) inhibitors I and II (R = Q, R1 = OH) is described.

IT 165748-16-3P

RL: BYP (Byproduct); PREP (Preparation)
(prepn. of aminoazepinoindolecarboxylate
aminopyridobenzazepinecarboxyl
ate derivs. as conformationally constrained dipeptide mimics)

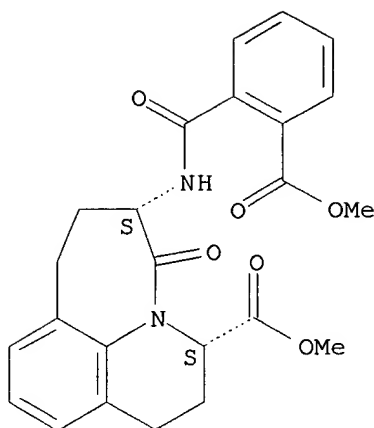
RN 165748-16-3 CAPLUS

CN 1H-Pyrido[3,2,1-jk][1]benzazepine-3-carboxylic acid,
2,3,5,6,7,8-hexahydro-

6-[[2-(methoxycarbonyl)benzoyl]amino]-5-oxo-, methyl ester, (3S-cis)-
(9CI) (CA INDEX NAME)

Relative stereochemistry.

09/882,777



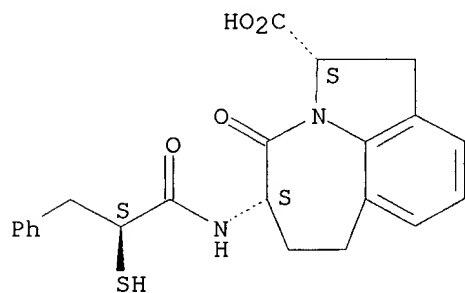
IT 157521-10-3P 157521-15-8P

RL: PNU (Preparation, unclassified); PREP (Preparation)
(prepn. of aminoazepinoindolecarboxylate
aminopyridobenzazepinecarboxyl
ate derivs. as conformationally constrained dipeptide mimics)

RN 157521-10-3 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid,
1,2,4,5,6,7-hexahydro-5-[[(2S)-
2-mercapto-1-oxo-3-phenylpropyl]amino]-4-oxo-, (2S,5S)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry. Rotation (+).

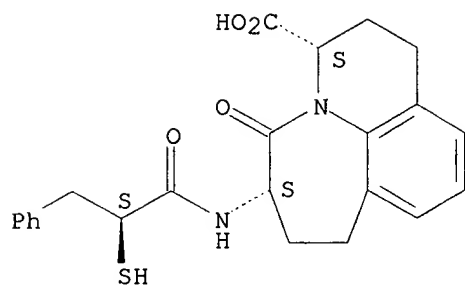


RN 157521-15-8 CAPLUS

CN 1H-Pyrido[3,2,1-jk][1]benzazepine-3-carboxylic acid,
2,3,5,6,7,8-hexahydro-
6-(2-mercapto-1-oxo-3-phenylpropyl)-5-oxo-, [3S-[3.alpha.,6.alpha.(R*)]]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

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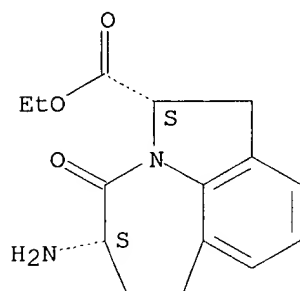
IT 157521-25-0P 166020-24-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of aminoazepinoindolecarboxylate
aminopyridobenzazepinecarboxylate
derivs. as conformationally constrained dipeptide mimics)

RN 157521-25-0 CAPLUS

CN Azepino[3,2,1-hi]indole-2-carboxylic acid,
5-amino-1,2,4,5,6,7-hexahydro-4-
oxo-, ethyl ester, (2S,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 166020-24-2 CAPLUS